

REMARKS

Claims 1-46 are pending. In the Office Action, claim 1 was rejected as being directed to non-statutory subject matter under 35 U.S.C. §101, and claims 2-19 were rejected as being dependent upon rejected claim 1; claims 20-32 and 34-46 were rejected under 35 U.S.C. §103(a) as being unpatentable over Schreiber, and claim 33 was rejected under 35 U.S.C. §103(a) as being unpatentable over Schreiber in view of Alamouti.

Claims 1-19 are amended to recite a transmitter that uses a dual packet configuration rather than the dual packet configuration itself. Claim 1 is further amended to recite first and second modulators of the transmitter. A transmitter including modulators for wireless communications falls under the classification of a useful machine, and therefore is statutory subject matter meeting the requirements of 35 U.S.C. §101. Claim 19 is further amended to recite specific operation of the modulator regarding data subcarriers and pilot tones.

Applicant respectfully submits that the rejection under §101 has been overcome and should be withdrawn.

Claim 20 is amended to clarify that the first portion of the dual packet configuration employed by the wireless communication device is modulated solely according to a serial modulation method. Schreiber does not show a wireless communication device configured to communicate using a dual packet configuration in which the first portion is “modulated solely according to a serial modulation method” as recited in amended claim 1. Instead, in Schreiber, all data to be transmitted is modulated according to OFDM. Note in FIG. 5 of Schreiber, for example, that all of the output of

the adder 102 is provided through the OFDM encoder 103, including data output 202 from the SS encoder 101.

Schreiber's configuration defeats a primary benefit achieved when modulating a first portion solely according to a serial modulation method in that legacy receiver devices configured to demodulate solely according to the serial modulation method are unable to receive the information encoded solely using OFDM. Although Applicant's invention is not limited to specific standards, in a particular configuration in which conventional IEEE standard 802.11b devices are employed in a wireless area, packets encoded entirely according to OFDM cannot be received by the 802.11b devices (see application as filed, page 3, lines 11-18). The 802.11b devices would then be unable to receive the OFDM packets and not be able to determine when they can next communicate. Such operation would cause interference among the 802.11b devices, which would further interfere with the devices employing the dual packet configuration as well. Backwards compatibility with serial modulation devices would not be possible in such a wireless area.

Applicant respectfully submits that the rejection of claim 20 under 35 U.S.C. §103(a) based Schreiber has been overcome and should be withdrawn. Claims 21-32 and 34-35 are allowable as depending upon an allowable base claim. Applicant requests withdrawal of all of these rejections.

Alamouti does not defeat the deficiencies of Schreiber, so that claim 33 is allowable as depending upon allowable claim 20 as well. Applicant requests withdrawal of this rejection.

Claim 36 is amended to recite a method of wireless communication using a dual packet configuration in which a first portion is modulated solely according to a serial modulation. Schreiber does not show a method of wireless communication using a dual packet configuration including “modulating a first portion of each packet solely according to a serial modulation” as recited in amended claim 36 since OFDM is applied to all portions as previously described.

Thus, for similar reasons recited above with respect to claim 20, Applicant respectfully submits that the rejection of claim 36 under 35 U.S.C. §103(a) based Schreiber has been overcome and should be withdrawn. Claims 37-46 are allowable as depending upon an allowable base claim. Applicant requests withdrawal of all of these rejections.

CONCLUSION

Applicant respectfully submits that for the reasons recited above and for various other reasons, the rejections have been overcome and should be withdrawn. Applicant respectfully submits therefore that the present application is in a condition for allowance and reconsideration is respectfully requested. Should this response be considered inadequate or non-responsive for any reason, or should the Examiner have any questions, comments or suggestions that would expedite the prosecution of the present case to allowance, Applicants' undersigned representative earnestly requests a telephone conference at (512) 474-7678.

Respectfully submitted,

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